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# THE AGRICULTURAL STUDENT

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FEBRUARY 1914

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## IT PAYS TO CLIP HORSES AND COWS

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The Stewart Ball Bearing Clipping Machine is for sale by leading dealers everywhere. Sold under a positive guarantee to please. Price,

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**THE S. R. FEIL CO. Dept. A-5**  
**Cleveland, O.**

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A short time after beginning to use Sal-Vet on a lot of this time in bad condition it completely cleaned the worms from these animals and at once they commenced to eat better, and to thrive accordingly. There were cases of cholera close by and we consider that Sal-Vet has saved our stock.

(Signed) D. E. C. LONG & SONS.

I have just shipped a carload of hogs that went within a week of topping the market. My neighbors lost their entire herds from disease.

W. J. BUTLER.

**SEND TO R. FEIL PRES. THE S. R. FEIL CO. Cleveland, Ohio**  
I have just shipped a carload of hogs that went within a week of topping the market. My neighbors lost their entire herds from disease.  
W. J. BUTLER.

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Address \_\_\_\_\_  
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State \_\_\_\_\_  
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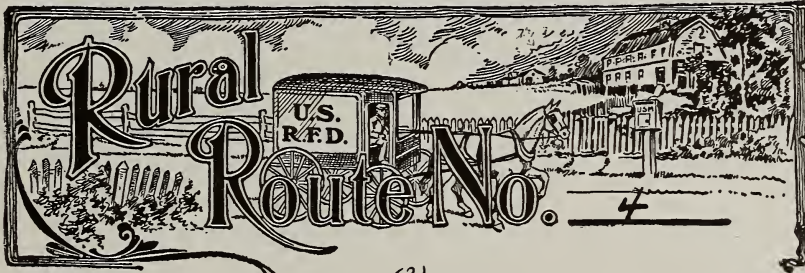
to the Dairy Inspector is like a trustworthy friend. No matter to what dairyman or factoryman the Inspector recommends Wyandotte Dairyman's Cleaner and Cleanser, he knows it will satisfy. Under all circumstances "Wyandotte" cleans clean, and as it costs so little to use, every buttermaker or cheesemaker is bound to be pleased.

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**THE J. B. FORD CO., Sole Manfrs, WYANDOTTE, MICH., U. S. A.**

This Cleaner Has Been Awarded the Highest Prize Wherever Exhibited.

## Copy of a Page from Father's Letter



(2)

no rain in October and the wheat is small and does not look like it would stand the winter well.

We finished husking yesterday. From the acre where we tried your theory about bone-meal and clover making the Potash available, we harvested 50 bushels of rather chaffy corn, and from the rest of the field, where we used bone, clover and 50 lbs. Muriate of Potash per acre, we husked out 70 bushels per acre of tip-top corn that is nearly all fit to sell on the ear for seed corn.

I figure that a ton of Muriate of Potash on 40 acres of corn will pay for a year's post graduate study for you and leave you a little spare change to chip in for athletics.

Mother and the girls are going to make a few days' visit to Aunt Sarah's

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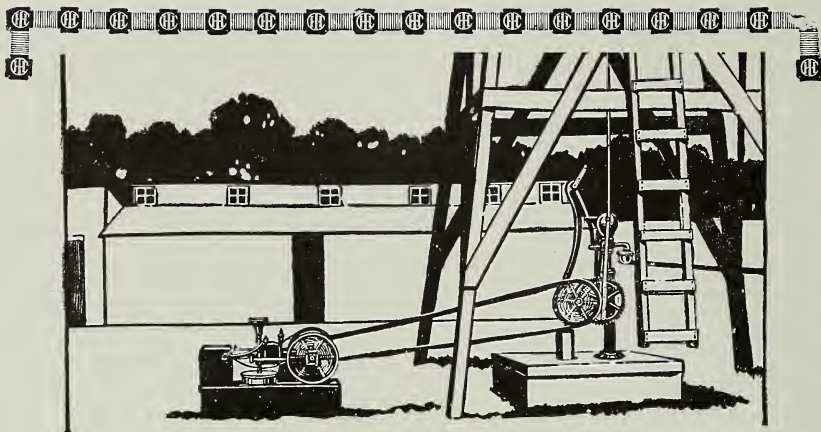
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## Once Upon a Time

ONCE there was really no way out of it for the farmer. Plodding home from the field with his team at close of day, he saw before him the waiting small jobs about the house, barn, and yard, jobs that took time and labor, and never seemed to end. There was water to be pumped, wood to be sawed, various machines to be run by hand. But that was once upon a time. Today he lets the engine do it.

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Have the I H C local dealer demonstrate the engine to you and explain its various points. Get catalogues from him, or write the



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(Incorporated)

Chicago

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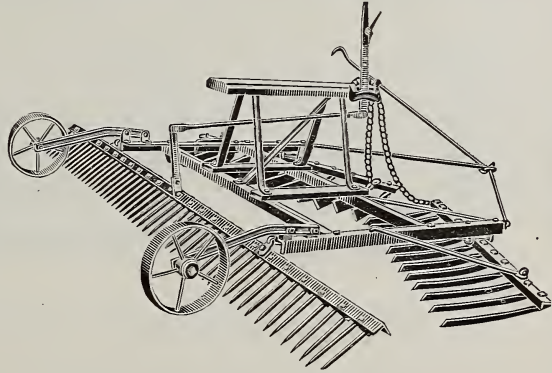


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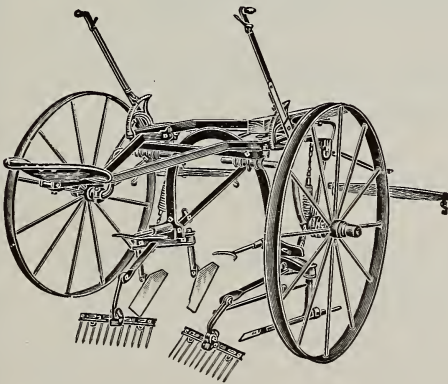
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is not only thorough in its method of cultivating, but is a weed exterminator and leaves the much desired mulch two to three inches deep, thus furnishing double protection by not destroying the corn roots and supplying a covering of fine dirt to retain the moisture. Good for all cultivations in all fields at all times by all corn raisers. All users of TOWER tools become enthusiasts. Look for the name "TOWER" when you buy.

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**J.D. Tower & Sons Co.**

MENDOTA, ILL.

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Better start today and ship us  
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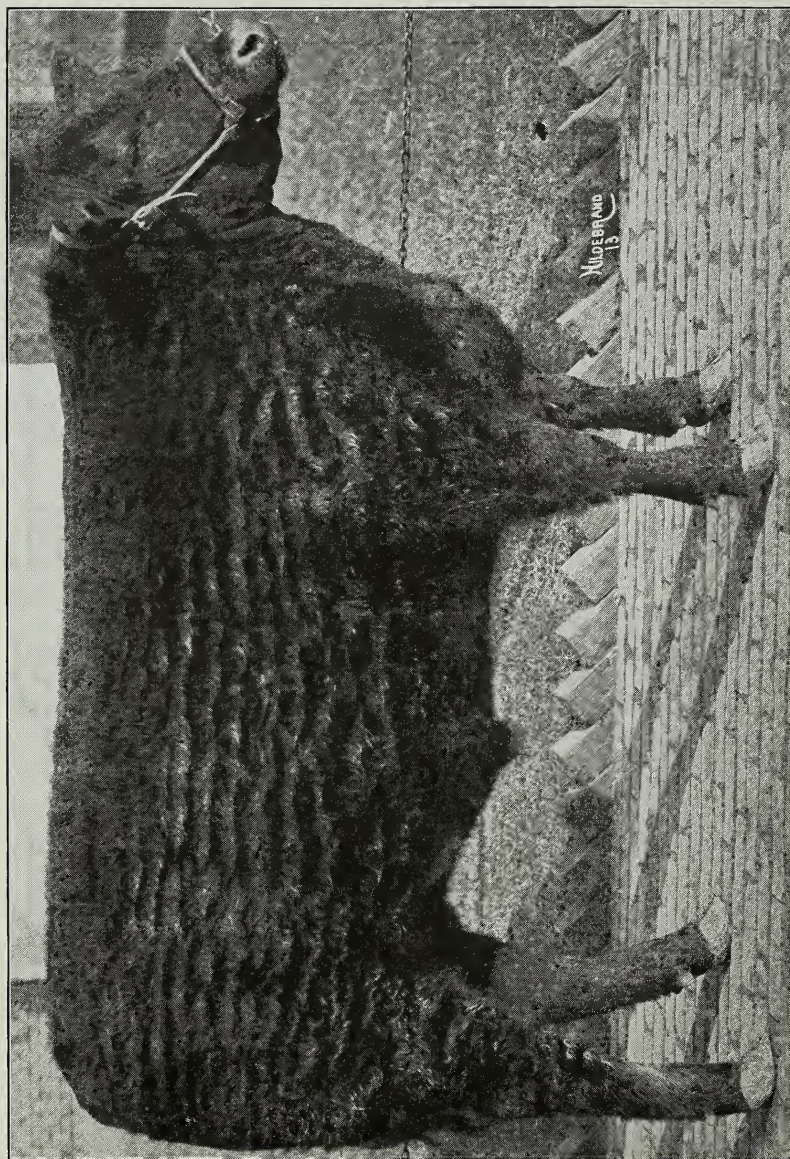
COLUMBUS, OHIO





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Grand Champion Steer of the 1913 International Live Stock Exposition.

—Courtesy Farmers' Guide.



# THE AGRICULTURAL STUDENT

Vol. XX.

OHIO STATE UNIVERSITY, COLUMBUS, FEBRUARY, 1914

No. 6

## George Washington—Farmer

F. E. PERRY, '14

A VISITOR to Mount Vernon in 1785 states that his host's "greatest pride is to be thought the first farmer of America. He is quite a Cincinnati." This is a new vision of George Washington. Many books have been written of him as schoolboy, surveyor, Indian scout, Virginia militiaman and legislator; volumes deal with his wonderful and unparalleled service as Commander-in-chief of the Continental army, as President of the Constitutional Convention and finally as the First President of the United States; while we have heard very little of Washington as a farmer, even though his greatest pride and greatest delight consisted in the successful management of his estate at Mount Vernon. Without rivalry he is styled "The Father of his Country" and "The First American," but just as appropriately does he deserve the much coveted title of "The First Farmer of America."

Such was his feeling for his home on the Potomac that he never seems to have been entirely happy away from Mount Vernon. Even though he occupied the highest position to which he could be elevated by his fellow countrymen, over and over again he "sighs" or "pants" for his "own vine and fig tree." Public office was not of his choosing and only when he felt it to be his duty did he leave his chosen occupation of farming. Late in life he wrote, "I think with you that the life of a husbandman of all others is the

most delectable. It is honorable, it is amusing, and with judicious management it is profitable. To see plants rise from the earth and flourish by the superior skill and bounty of the laborer fills a contemplative mind with ideas which are more easy to be conceived than to be expressed."

Even in the early years of his life Washington was a thorough student of agricultural writings and all through his life he was little of a reader, except of books on agriculture. Of these texts he made lengthy abstracts in note books and the knowledge he thus obtained together with his practical experience soon convinced him that the one-crop Virginia agriculture was unprofitable. As a result tobacco culture was practically stopped at Mount Vernon, only enough being raised each year to pay for what was imported from England. Sooner or later his example was followed by all Southern planters and the system of crop rotation was introduced.

Elaborate tables of crop rotation were drawn up for each field of each farm of the estate, covering periods of 5 to 7 years, so that the total quantity of each crop should not vary but that each field should have constant change. This system naturally diversified the products of the farms and flax, clover, buckwheat, turnips, hay and potatoes became large crops. Field Number 3 of the Dogue Run Farm had the following 7 year rotation: corn and potatoes, wheat, buckwheat for manure,



wheat, buckwheat, clover and other grass, clover and other grass.

The growing of wheat seems to have especially interested Washington. He wrote to one of his managers,, "If the wheat is thrown much out of the ground and the roots exposed, try the roller thereon—repeatedly—as soon as the earth is a little settled. \* \* \* \* I tried this method one year with good success and it is recommended by all the Books on farming. \* \* \* \* I have seen bunches of wheat the roots of which have been entirely out of the ground, take again by the Roller's compressing them to the earth." In 1765 he boasted, "the wheat from some of my plantations by one pair of steel-yards, will weigh upward of 60 pounds." In 1792 he grew over 5000 bushels of wheat valued at 4 shillings a bushel and in 1799 he said, "as a farmer, wheat and flour are my principal concerns."

In 1798 he wrote to Sir John Sinclair, "The manner in which the early wheat (respecting which you inquire) came into this country is not ascertained. The history of it \* \* \* \* I will relate. A farmer walking in a field of wheat when it was in full bloom discovered a plant or two that was perfectly ripe, and carefully separating it from the rest, sowed it at the usual time, the following autumn. From this small beginning about 7 years ago this state and those adjoining are well in seed. The grain is full, white and heavy." In the same letter he tells that the Egyptian wheat "which you had the goodness to send me" was not able to withstand the severity of the winter.

The friends of Washington both in England and America sent him many seeds and cuttings and kept him ac-

quainted with any improvements that were being devised. He wrote to Thomas Pinckney in England thanking him for "the shipment of 2 sacks of field peas and like quantity of winter vetches." The experiment with the field peas was a failure however, as they did not arrive until April whereas they should have been in the ground by the first of March.

Mount Vernon increased from 2500 acres which Washington inherited, to an estate of 800,000 acres. This vast tract was subdivided into five farms, each with its own manager who at the end of every week was required to make a report of the week's work. During his absence the chief manager sent him these reports and in return received long letters of instruction, sometimes to the length of 16 pages. A separate account was kept of each farm and his secretary, Shaw, told a visitor that his "books were as regular as any merchant's." With this system of business Washington was a successful farmer, and when he died his estate, exclusive of his wife's and Mount Vernon, was valued at \$530,000. This made him the wealthiest Virginian of his time.

As Americans we are more indebted to George Washington than to any other person for the establishment of our nation. As people of the Ohio Valley we are doubly indebted to him, who as western frontiersman and landholder prevented the separation of the Ohio Valley from the Federal power and its foundation of a separate state. As farmers we are thrice indebted to him who gave such willing time and thought to the solution of the problems of agriculture and whose marked success in this field gave him alone the right to be called "The First Farmer of America."

# The Church as a Social Factor in Community Life

REV. C. E. TURLEY  
Shawnee, Ohio

**W**E live in a great age in the world's history. It is an age of progress, of growth, of development along all lines. This progress is not confined to centers of population, but is going through the whole of our American life.

The man who lives in a rural community is no longer shut off from the

chinery on the farm, the irregularity of country work, the greater industrial opportunities in the centers of population, the larger social and educational advantages, the unequal distribution of foreign immigrants, have all had a tendency to increase the population of the city in a greater proportion than the country. According to a bull-



ADDITIONAL ROOM BUILT TO A COUNTRY CHURCH AND USED AS A SOCIAL AND GAME ROOM.

rest of the world and no longer is he found far behind the chariots of advancing civilization. The wide use of the telephone, the free rural mail delivery, the parcel post and the omnipresent automobile have completely revolutionized rural life. There has been some cause for alarm in these past few years, that we would become a nation of cities. The lure of the city has proven attractive to many.

The introduction of labor saving ma-

etin prepared by Mr. William C. Hunt of the department of commerce and labor, the total population living in urban territory in 1910 was 42,623,383, an increase over 1900 of 38.4 per cent. The rural population in 1910 was 49,348,883, an increase over 1900 of 11.2 per cent. Thus the rate of increase in cities was more than three times that in rural territory. In the great agricultural states of Ohio, Indiana, Iowa and Missouri, there was a decrease in

rural population from 1900 to 1910.

It would be a great misfortune to this Republic if there should be a decline in the home life of our rural communities. Country homes supply five-sixths of our ministers and six-sevenths of our college professors, and many of our great leaders in industrial, political, social and religious affairs.

One of the greatest centers of rural life, one which strengthens and re-enforces all phases of community life, is the church. The church is an old institution. When our forefathers settled on the shores of the western continent, by the side of the homes and the schools, they erected churches as places of worship to Almighty God. The church has kept the Bible an open Book to the multitudes, has given protection to the homes, has perpetuated the observance of the Sabbath Day, has fostered and maintained educational institutions, has been the chief inspiration of philanthropy, and has guarded and helped to maintain the morals of the people.

Today the church is entering upon a large field of usefulness. The **living and the growing church** must recognize the fact that it has a **social mission among men**. The social life of a community depends upon the harmonious relations of all its parts. The successful church of today must minister to the social needs of the people. Man is a social being. "None of us liveth unto himself." We enjoy fellowship with our fellowmen. The hermit may so train himself that he enjoys the loneliness of the desert, the quietness of his own hut; the monk may find enjoyment in the stillness of his solitary cell. But every normal person enjoys and must have the companionship of friends. Young people will meet together somewhere. When

the boy and the girl reach the age of sixteen their social instincts begin to assert themselves. They begin to feel that they are men and women and must associate together as their older brothers and sisters do. It is the business of the church to supply this demand for friends, to give them amusements and pleasures that are clean and wholesome and pure, and thus properly direct their lives in the formative period. Churches should provide social rooms and thus relate the social lives of the young people with the development of their religious lives.

Again, it is the business of the church to bring the people of a community together on one common platform with one common program. In many rural communities old fashioned sociability and hospitality seem to have disappeared. Little cliques and factions exist and thus render impossible any harmonious community life. If the community is fortunate enough to have only one church, let the pastor and all the members work together as one man to make the church minister to the social and intellectual needs of the people as well as to the spiritual needs.

Governor Eberhart of Minnesota, in an address before the general conference of the Methodist Episcopal church, held in Minneapolis in May 1912, said: "The time has come when a religious body like this ought to take into consideration the fact that country life is too lonesome, and that city life gets every attraction. The glare and glitter and glimmer of the city is attracting thousands of young men, women and children from our rural districts and they are congesting our cities. I would like to request this body of men and women to co-operate with the state in the establishment of social centers in the country where we can bring to



the people attractions and amusements that are clean and wholesome and which will attract the young people and keep them from being drawn to the large cities."

There are many sincere and honest people who maintain that the church was built for worship and should be used for nothing else, and they are shocked beyond degree when lectures or social entertainments are held in the church. Where the church is the main auditorium in the community, we say, open it and use it for the greatest good for the largest number. The church should attempt to serve the people in every possible way, and thus by serving the people it gives justifiable reasons for its existence.

The writer recently spent some time investigating country life conditions in a prosperous county in western Ohio. Some persons interviewed seemed to feel the church was losing ground. Here are several reasons given by different persons in various walks of life: "Mediocre talent in the pulpit. When one goes to church he wants to hear something worth while." "Division in the churches over minor questions." "The churches are making no attempt whatever to improve the social life of the people." "A few in the churches want to run them and they are not particular about taking in new members for fear they would lose their places of power." "Not enough sociability in the churches." "Denominational lines drawn too closely." "Too long intervals between preaching services." "The younger generation more concerned about making money than about religious things."

The township had a population of over 1500, about six hundred members of the different churches, five active churches and two resident pastors.

There are some things that weaken the rural church:

1. The hindrances of tradition. The members do not desire to do things any differently from what they have been done. They hold to the hind legs of antiquity and when new suggestions are made they say "We've been doing this way for twenty-five years. It was good enough for our fathers and it's good enough for us." Whenever a church assumes this attitude it is about ready for the cemetery.

2. Life tenure of church officials. Whenever a man or a woman has held office in a church so long that they resent receiving advice from pastor or anyone else, then their usefulness has expired and their continued life as an office holder will seriously impair the usefulness and efficiency of the church.

3. Some, if they do not personally like the pastor, will withhold their support and absent themselves from the services and thus try to discount the pastor and the service before the people.

4. Small financial support of the minister. The minister is sometimes made heartsick the way his salary is doled out to him. If farmers can have all the best and latest machinery and ride in automobiles, they certainly ought and can give a decent support to their minister.

In some places the rural church may be on the decline. But as we look across the field we believe there is a splendid outlook and promise for the future. The country church is nation wide in its influence. It must continue its work of inspiring both old and young with the highest and best ideals, it must continue to lift before all the people the one perfect man, Jesus Christ, "who came not to be ministered unto, but to minister, and to give His life a ransom for many."

## The Lincoln Highway

C. M. BAKER, '16

IT has been the policy of the American people to commemorate their illustrious dead by large and magnificent monuments. Some of these monuments are built to retain the bodies of noted generals or worthy statesmen while others are simply memorials to names which the American people cherish. As an example of the former we have Grant's Tomb in New York and of the latter, the Washington Monument at Washington, D. C.

should be known as the Lincoln Highway. While the memorial at Washington would indeed be a triumph of architecture and appropriate to the name of Lincoln, yet it would not have the national significance of the highway, since the latter would effect the whole United States. This would rival as a national work the Appian Way, the most famous of all highways, built by Appius Claudius, 300 B. C., which is still in use. Such a memorial would



CONCRETE MAKES A PERMANENT ROAD.

A few years ago \$2,000,000 was appropriated by Congress to build to Abraham Lincoln a suitable memorial on the Potomac near Washington. Later, it was proposed to build a highway from Washington to Gettysburg over the route which Lincoln took when he made his famous Gettysburg address. However, after due consideration, this idea was dropped and the proposition brought forth that a highway should be built through the central part of the United States, and that it

indeed be worthy of the people to which Lincoln belonged.

There are other reasons why the Lincoln Highway should be built aside from its significance as a memorial. During the last few years considerable agitation has been manifested as to the form and material used in the construction of our highways. The old forms of limestone and macadamized roads have been worn out in a short period of time under the present mode of travel; hence the construction of such



roads is not an economical expenditure of public money. Federal supervision and permanent construction seem to be the only effective means of solving the problem of our country roads. Then, if Congress is to take up the problem it can utilize its influence in no better way than to build the Lincoln Highway as an example of the proper kind of road construction. Brick and cement are the materials which would be used—materials which have proven beyond doubt to be the only permanent kind.

Highway traffic is undergoing a wonderful change. General use of mo-

iting weights and speeds and demanding large fees for road repair is an unprogressive movement. Moreover, such action would not save the roads, but it would hinder the economic development that will benefit the farmers by hastening and cheapening collection and delivery of all kind of commodities in the form of produce and merchandise. This fact being so obvious, this forerunner of better construction is assured, and already three-ton motor trucks have passed over the proposed route, testing grades and speeds.

Besides making a standard for the



EIGHTEEN FOOT COUNTRY ROAD OF CONCRETE, COSHOCTON COUNTY, OHIO.

tor-propelled vehicles is becoming as necessary as was that of the mechanical seeder, cultivator, and binder. Improved methods of rail and water transportation must be supplemented by proficient methods of collection and distribution. Better transportation by roads has become an economic necessity for the expansion of industry and commerce. To meet this need, it is evident that road construction should rise to this standard of development as soon as possible. To attempt to restrict loads and speeds to the present inadequacy of our country highways by lim-

construction of future highways, it will also influence and encourage the states through which it passes to begin a system on inter-state roads which will connect with and radiate from the highway. Likewise every county and every township in the state will be influenced to take up the "better roads" proposition until the whole state will have a fine system of roads permanent in form and economical in construction. Such action has already been taken in some sections and the building of the Lincoln Highway will be an added stimulus to the movement.



The idea is prevalent in the minds of many farmers that the construction of such a highway is the result of the influence of the automobile industries to the effect that the traffic will be limited to the use of motor vehicles. Although the automobile industries are actively engaged in promoting the highway, it will be open to all lawful traffic with no toll charges of any kind. Moreover, motor vehicles are now essential to the comfort and welfare of the farmer, but with the average conditions of our country highways they are a hindrance. The horse and buggy mode of travel has done little or nothing toward the betterment of our highways but the motor vehicles, contrary to the convictions of many, have made possible the construction of better roads all over the country. Indeed, much of the money needed in the constitution of the Lincoln Highway is being raised by private subscription through the influence of the automobile agencies.

The proposed route of the highway is being decorated by the national color

in such a manner as to instill patriotism and this may be the beginning of a great movement for the beautifying of our country roads. In many places loyal citizens have volunteered to assume the expense of placing drinking fountains and other commodities along parts of the route. School children are taking up the plan of planting trees and flowers along many sections—and it is not improbable that the influence of the movement will extend the entire length of the highway. Such action has an aesthetic value that cannot be overestimated.

In the midst of all these proposals and influences for good roads, and, after our imaginations have run wild over suggestions, after we have built air-castles about the future conditions of our country roads—how they will be cool, inviting highways, laden with flowers—let us not forget in addition to these features, the most important idea of all, that the Lincoln Highway will be a memorial forevermore to a man, who “though dead, speaketh.”



GOOD ROADS SERVE PLEASURE AND BUSINESS.

## Agricultural Advertising

G. G. HAYES, '12  
Managing Editor "Better Farming"

GOOD agricultural advertising is nothing more nor less than common sense. To many of us who are interested in the reading of advertisements the fact that advertising is common sense may be news or even a surprise, but it is true nevertheless. The savants may term it "psychology" rather than common sense, but they mean the very same thing. The success of every advertising appeal depends on a common sense view of what the public wants, at the time they want it and in the way they want it. Good advertising is good salesmanship. It substitutes a drop of printer's ink for a traveling man and his busy tongue. It has a fast-growing and intimate connection with the modern agriculture of this country.

Let him who would be advertiser to the farmer first know, above everything else, that the modern farmer is among the shrewdest of business men. Gullibility no longer resides in the open country. The farmer is becoming too well educated through the many institutions afforded him in this modern era. The farm paper is the market place of the modern farmer. When an advertisement directed at farmers can not inspire their confidence or arrest their serious attention it usually shows a pitiful urban inappreciation of the business of farming and of the conditions that surround it.

An undue familiarity is resented by most farmers in this year of 1913. Who has not the good right to be suspicious of the effuse stranger who pats us on the back and calls us by our first names? Farming it not politics. It is founded on efficiency, both in the buy-

ing and selling: the pull that counts for success in farming is that exerted through tugs or tractor. The old method may have produced results in the old days, but it has been sadly overworked. I firmly believe that the only reason flattery ever did pay was that the city-smoked flatterer did not then have sense enough to display a better brand of selling talk. Like old King Canute, who confounded the court flatterers by removing his throne to the seashore and sitting there until he got his feet washed by the rising tide of real sea, the farmer came into the habit of putting his hand on his pocketbook whenever his eyes and his ears were open to the full sound of flattery.

The present day farmers, whose patronage is worth cultivation, have instincts and training which prompt them to resent undue intimacy and effusive congratulations and the advertiser who gets the farmers' business nowadays must be as sound a business man as his customer. We are inclined to be dumbfounded when we stop and ascertain that agricultural advertising had its start but 60 years ago. What a giant stature it has attained in the comparatively short span of a half century and a decade. It is safe to say that the past decade has seen a further advance toward the goal of efficient publicity than the whole of the previous half century. The younger advertising men exalt and point proudly to the reason for this. "The fact that efficiency in advertising is coincident with the rise of efficiency in education, economics and everything."

The farmer of this day reads on an average many more columns than the

city business man of equal calibre. The farm family buys in the publicity columns of the farm paper and shops in the catalogues. The advertisers' problem is now one of how to best reach the clientage through the medium of the printed page. How shall the advertiser reach the farmer? There are mediums and mediums. The buyer of space, the seller of goods, must pick his medium. In advertising as in other business a prevalent rule seems to be: "Let the buyer beware." This is where the common sense idea comes in strong again. The man who would seem to lack horse sense to advertise cattle in a sheep paper may be striking the exact medium for pulling big inquiries: who knows? It is doubtless true that the first daring souls to advertise cattle in a sheep paper might find a better market for cattle among the flock masters than among cattle men. The people who cannot pick proper mediums for their advertising would hardly sell anything were they divulged with bona fide replies.

The writing of advertisements is a vocation nowadays. It requires traits which are not possessed by every one. Perhaps good copy-writers, like poets, are born, but training has all to do with success. It constitutes the monumental superstructure which must be reared on the foundation of mother wit. To write an appeal that pulls the author must understand the business, the ideals and the mode of living of his readers. There is a great virgin field here, very fertile, for the agricultural college graduate. This sort of job does not beckon or invite. It is a business, and for the young man who has ambitions along these lines, there is great opportunity. He must jump in and buck the line and prove that he has the goods and all this in front of his own steam. The world

of business men recognize the outstretched hand of the young man who can join their fraternity only when he is clutching so dangerously at their coat tails that they fear for their foothold on the ladder.

A well-written advertisement is honest. It does not flatter, it attracts: it is clear-cut argument and is easily understood. There are tricks of psychology, to be sure, but they show the greatest celerity in jumping through the hoop of honest advertising.

If brevity is the soul of wit, it is the soul of advertising. The advertisement reader wants facts and not a recital of extravagant English, too thick to see through. Rigamarole is worse than nothing, for granting that it does not at once disgust the reader, it is likely to bring on a daze through which no selling argument could penetrate. Just plain white space is often the most eloquent part of many an advertisement. When the advertiser has said his say, told what he has for sale, its advantages, where it could be obtained and how, he has dealt in the essentials. Extravagant language may kill a dollar's worth of trade for every dime's worth of casual inquiry. The brevity of an advertisement should never be confounded with the size of space. There is an amount of space for every advertisement which will yield the greatest percentage of returns on the investment, but the only way to determine it in our present stage of knowledge seems to be cut and try. It takes common sense to cut, and try, to best effect.

Every good advertisement has a real story to tell. That is why farmers usually write such good advertisements for their own products. They know about what they want to sell. Some of the best written advertisements in the



agricultural press are from the pens of farmers, selling goods of the farm, such as live stock to other farmers. It is certain that the pulling advertisements are the parts of minds which have placed themselves in the farmer's position or state of mind, whatever one chooses to term it. At any rate it must be a real story, for it is the real story that "brings home the bacon." There is little use of trying to make a full-size circus tent out of a pocket handker-

farm, in fact it should be associated with the farm name on almost every occasion. The public soon comes to recognize the trade mark as the stamp of a particular quality or type of goods and many will insist on receiving that particular brand as proof of the pudding they are about to eat. Good farmers buy by trade mark and are now beginning to sell by trade mark. The trade mark is the pure food law of advertising.



NEAT BUILDINGS AND WELL-KEPT PREMISES ARE GOOD ADVERTISING FEATURES FOR ANY COMMUNITY.

chief. Unless there is a good reason why people should do business with an advertiser they will probably never discover it.

Whoever invented the trade mark deserves business vote of thanks. The trade mark is the sign of individuality, stability, quality and reliability in advertising. Farmers should make more use of the trade mark. It should be a part of the advertisement no matter how small the space, it should find a place on all packages that go from the

It is not the first crop of replies that brings the largest advertising returns. It is the persistent growing demand that yields the "velvet." The best advertisements bring the "repeats" on the trail of the initial inquiry. The advertiser, who can find the greatest returns, must be prepared to follow up his inquiries in a persistent, persuasive way. Properly answering the interested inquirer is as important as securing the inquiry. There is usually an individuality about each inquiry which

one can recognize from the nature of the inquiry by the hand-writing, by the typewriting, by the spelling or by the punctuality. One can tell whether the customer is "Dutch" or just plain "American." The letter of inquiry will readily reveal whether the correspondent is a man of few words and much action, or one of ambiguous verbosity and an inclination to find out more than to buy out. It is often a good plan to answer letters in the spirit of the inquirer. Some may thus require to be written in high German, some in one line and others in one volume. The advertiser who is a clever psychologist in answering inquiries is a salesman of no mean ability.

Advertising is inescapable: this may seem strange to the indifferent student. Nevertheless one advertises whether he can or cannot. The agricultural student out of college may not be aware that he is entering an extensive advertising campaign, but he is. His attempts at advertising begin the very moment he starts into business. There is no middle ground. He either attempts constructively or destructively. If he does not the world will move him—backward. The best plan is to take the bull by the horns and advertise him. The man who can grow good crops, raise good live stock and manufacture good farm products, deserves the financial benefits of good advertising. That is why the matter of advertising is of

interest to every student of agriculture.

From what ranks are the agricultural advertising men of the future to be recruited? Where but from the agricultural colleges? Where else can one obtain the ideal training for the new agricultural advertising? Scientific knowledge of farming, polish, sharpened common sense, an intimate view into human nature and argumentative tendencies—such are the virtues of training in such institutions as "The Agricultural Student" of the Ohio State University represents. Is a special course in advertising necessary? It is not necessary: it might be helpful. A broad knowledge is the principal necessity.

There is sure to arise a new advertising which will be fashioned even more intimately than now on the economic laws of the world's business. It will be bought and sold for value received, and will not be dependent on the brand of cigar which the solicitor carries or the family or club or relationships. It will be a dealing for value received. It will require closer study, more intense application, more severe speculation. The business is fascinating because it is competitive. Competition is the merciless assayer of the metal of which the young man is made. The agricultural student who would play a game with a prize worth having may go farther and do worse than to consider a life in the field of advertising.

Die when I may, I want it said of me, by those who knew me best, that I always plucked a thistle and planted a flower when I thought a flower would grow.

—Abraham Lincoln.

## The Status of the Fair

C. T. CONKLIN, '15

AS a vehicle for furthering the plans for better Agriculture, the county fair might certainly be employed most efficiently, for it holds a place in the hearts of the country-side as no other rural institution. And who doesn't enjoy a day at the fair? But, notwithstanding the many attendant pleasures, it is the intent of this article to question the purpose and efficiency of the average county fair.

While agriculture has advanced the county fair has retrogressed, until instead of furnishing valuable information and wholesome entertainment for the farmer and his family, it offers a gaudy array of cheap shows, often of a questionable character. Only last season, one fair in the eastern part of the state billed for its stellar attractions a style exposition and an automobile show. Surely there are other things of vastly more importance to interest the farmer on his holiday. The fair, because of its communal nature, has a mission in bettering the crops, improving the live stock, and making more enjoyable the social life of the community. But before it can possibly hope to attain these ends it must direct its forces toward improving conditions in the country.

More attention must be paid to a

prize winner than to a freak. The Oriental dances with their super-tango music and the chemical beauty with her den of writhing serpents must make way for the golden loaves of bread and the sleek-sided steer. If the ideals of the fair are high-class cattle, improved corn and potatoes, the farmer on his holiday, when his mind is most receptive, cannot resist the charms which are rightfully his. At least his son or daughter will be inspired by these forcefully directed ideals of improved agriculture.

Doubtless there are reasons for the present condition of our county fairs. In the writer's mind they are reduced to two; namely, financial status and lack of vision of those in charge. Under the present system the side show and the faker make possible many of our fairs. To avoid this, either the state must increase its help, or manufacturers dependent on the farmer must be induced to bear at least a share of the financial burden. Then public spirited men, with a desire for service, must lead the forces in every county, planning a fair with a policy of increased efficiency for the farmer, making it an educational day of lectures and demonstrations on soil fertility, crops and home implements.

Labor to keep alive in your breast that little spark  
of celestial fire called Conscience.

—George Washington.



## The Hilly Lands of Southern Ohio

H. C. BAUMGARDNER, '14

THE southern part of Ohio is quite rolling and in many places hilly. These lands were at one time heavily timbered with oak, beech, tulip, pine and other forest trees. Owing to the high price of timber practically all this land has been cleared. For a short time these hills gave a fair return in the way of corn, wheat, oats, and hay, but on account of the sandy soil and hilly land, the heavy spring rain soon washed great gullies in the fields making cultivation unpleasant, and because of the washing away of the top soil, very unprofitable. Once a field becomes badly gullied little attention was paid to it and new patches of land were cleared. These abandoned fields grew up in scrub oaks, briars and weeds, and it is in this condition that we find thousands of acres dotted here and there with abandoned farm dwellings. In a few instances we find small flocks of cattle or sheep grazing on large areas of this land; often only ten or twelve head to fifty acres.

In this day of scientific farming cannot these waste lands be so managed as to prevent washing away of the soil, conserve fertility and at the same time give the owner a fair remuneration for his labor and investment?

The affirmative answer to the question has been solved by a few men, and we wonder why more people have not followed their footsteps.

One of these men owns about forty acres in a fertile valley, and the remainder of his farm comprising about three hundred acres lies in the adjacent hills. The bottom land is devoted entirely to raising grain and an occasional crop of clover to plow under. The hill land is devoted entirely to hay

and pasture, and very seldom plowed. A large part of the corn raised is put in the silo. All the hay and grain are fed on the farm, excepting the wheat.

The livestock consists of grade Short-horn cattle, Shropshire sheep, Percheron horses and Berkshire hogs. The cattle are usually fattened on blue grass pasture and sold as two year olds. No special attention is paid to milk production although some cream is sold and the skim milk fed to calves. The sheep are sold as lambs in the summer and fall. Nearly every spring we find one or two thrifty colts for sale. Sufficient hogs are raised for domestic use.

Here the washing of the soil is guarded against by keeping permanent blue grass pastures and timothy meadows each of which is covered from time to time with manure and occasionally the timothy sod is given an application of commercial fertilizer. The orchard which is also located on the hill top, after bounteously supplying the home, brings a nice little profit from its surplus.

Yes, we may say this man is ideally located for this type of farming, but there are many other farms similarly located that do not yield anywhere near the net returns that this farm does.

Another farm located entirely in the hills presents just as striking an example and probably brings greater returns on the investment. There are four hundred acres in this farm, such land as can be purchased from ten to twelve dollars an acre. Just enough grain is raised to winter the stock, and this is done on the more level pieces of ground on top of the hills. The re-

mainder of the farm consists of blue-grass pasture and timothy meadows. Horses, cattle and sheep are raised, but none are fattened on the farm. Instead they are sold to the farmers that grow corn on the bottom land.

Both of these men receive a good remunerative reward for their labor. They have solved the question of hill farming by livestock raising instead of

grain farming as many others have tried to do.

In view of the fact that we find the demand for meat and livestock products in general increasing from day to day and year by year, is it not reasonable to believe that there is almost a golden opportunity for the young herdsman in the livestock industry of Southern Ohio?



AMONG THE HILLS OF SOUTHERN OHIO.

## The Ohio Dairy Show

L. L. RUMMELL, '15

**"E**VERYTHING was great" voiced the decision of all the six hundred dairymen who attended the first real Ohio Dairy Show and the 20th annual convention of the Ohio State Dairymen's Association held at the Ohio State Fair Grounds, February 5 and 6. In former years the convention was held at the University, but this year the spacious and well-arranged auditorium of the Women's Building at the fair grounds invited a greater exhibit in dairy interests than has ever been given here before.

Around the hall were numerous booths where manufacturers vied with each other in displaying all supplies for the dairy and creamery from the silo to hold the feed down to the salt to put in the butter. Demonstrations of milking machines were given with the cows in the building where one could see the entire operation.

The Dairy and Food Department had various placards, milk cans, photographs, and samples to represent the best along with the common and unsanitary practices in milk production. Different kinds of equipment for the dairy such as cork brick, stanchions, litter carriers, and feed were displayed along with that necessary in the creamery, such as churns, pasteurizers, separators, engines, and other supplies.

Premiums were offered for the best entries of farm butter, market milk and separator cream. Cash prizes of \$10 and \$5 were given for first and second prize exhibits. The premiums in these classes were as follows: Butter—J. M. Baumiller of Nutwood, first with a score of 94%; J. G. Eaton of Quaker City, second. Market Milk—Twin Oaks Dairy of Springfield, first

with 97%; and Byron Seedy of Bellville, second. Cream—Byron Seedy, first with a score of 97.25%; and W. C. Garber, second. The most serious drawback in the exhibit was the lack of interest on the part of the dairymen. For example, in the butter class there were not sufficient entries to award a cash prize. There were only sixteen samples of milk when there should have been three or four times as many in as great a state as Ohio with her reputation as a leading dairy state.

During the morning session of the first day President Bailey gave a brief resume of the year's work and outlined the plans for the future. After an address of welcome by Dean H. C. Price, C. C. Hayden of the Ohio Experiment Station sketched the development and the needs of the station's dairy department, and showed the significance of its present high standing.

The first speaker of the afternoon was Will Forbes of the U. S. Department of Agriculture, who spoke on "Cow Testing Association Work." He gave as the three important points to this subject the history, the method and the advantages of the testing association. He stated that 1 of 1% of the cows of the U. S. are being tested and that there are now 125 associations.

"Oleomargarine versus Butter" was discussed in a straightforward manner by G. L. Flanders of New York. The plan of the new ruling with a standard to be defined in the Federal Laws was his topic. J. J. Schmidt, Secretary of the Ohio Association of Ice Cream Manufacturers, closed this session with a talk concerning the popularity of ice cream and the progress of the business.

In the evening over 200 sat down to



the banquet in the auditorium. Toastmaster Sandles introduced Gov. Cox, Pres. Thompson, Pres. Waters of Kansas, and other leading agricultural men.

On the second day the association was fortunate in securing two of the Ohio breeders of world record cows. G. W. Rising of Fayette, gave as the two important "Secrets of Cow Testing," the love for the individual cow with abundant feed and careful management for highest production. "Maintain a proper balance in the feeding and keep the cow in smooth working

suggestion from the Agricultural Commission. The Commission wants to help the Ohio dairymen free their herds from the dread scourge of tuberculosis. It is now ready to begin its work. It offers its services to any dairyman to co-operate with it who will carry out its instructions. It will involve tuberculin testing of all cattle over six months of age on the owner's farm, quarantining of all animals that react to the test to be disposed of later without menace to other herds or public health, by slaughter or permanent quarantine as



THE CHAMPION JERSEY COW OF THE WORLD.

—Courtesy American Jersey Cattle Club.

condition" was the key note of his discussion.

"Variation and Selection go hand in hand and are the first essentials in improvement" according to G. A. Dimock in his address "The Successful Breeder." Keen observation, a study of the breed and an idea of a perfect animal, careful mating, selection of the sire, and testing were other requisites that he mentioned for prosperity in live stock breeding.

At the last session L. P. Bailey was reelected President; G. W. Rising, Vice President, and Prof. O. Erf, Secretary and Treasurer. C. G. Williams read a

may be mutually agreed upon; retesting the herd every twelve months or at shorter intervals as deemed necessary by the Agricultural Commission; and a testing after isolation of all animals that are brought to the farm. Upon carrying out the plan, the Commission will publish in its official report the dairyman's name with an accredited list of dairymen whose herds are found free from tuberculosis.

"The cow is rightly the Queen of Wealth Producers" asserted W. W. Marple of Chicago, in his tribute to the dairy cow. "An acre of alfalfa will produce ten times as much protein and

three times as much nutrients as one acre of timothy" was the statement of A. J. Glover, Associate Editor Hoard's Dairyman. Alfalfa and silage make an excellent combination for the dairyman. His talk brought forth much discussion.

In the following address of E. A. Bishop, Assistant Secretary of the American Guernsey Cattle Club, dairymen were convinced that production implies a combination of 51% cow and 49% man as the true means of the cow's ability.

The last speaker of the meeting was

J. F. Hudson of Ravenna, who gave as the chief consideration in marketing dairy products, uniformity in quality and production.

The success of the show and the Dairyman's Convention is due largely to the efforts of Professors Erf and Cunningham of the Dairy Department and to L. P. Bailey, the President of the Association. Through their influence and skill this gathering was the greatest of any ever held in the state and will stand as a mile stone in furthering the interests of Ohio dairying in the future.

"National strength lies very near the soil." "The farm is the basis of all industry." "We have encouraged manufacturing at the expense of the farm." "What fertilizer to use must be governed by the needs of the soil." "Clover is worth raising for its own sake."—Extracts from the Address of Dr. C. G. Hopkins at Farmers' Week.

## Dr. Stephen Moulton Babcock

TOM L. SMITH, '14

**I**N the world of science Dr. Stephen Moulton Babcock is known today as an investigator whose mind is ever budding with new ideas, as a scientist untrammelled by tradition or blinded by preconceived notions, and as a sincere man. But in the world of farmers he has perpetuated a still higher fame. To all the country people he is known as, "The man who invented the Babcock milk test." This invention by Dr. Babcock in 1890 has made his name well known among the dairymen of every nation; it has marked him as a man of usefulness, with a big heart, because without greed he gave his invention to the people. Claiming that his services belonged to the state of Missouri, he refused to have his invention patented, thus putting aside a colossal fortune.

Because Dr. Babcock is a very modest and retiring man who shuns the limelight and dodges the press at every opportunity, little of his private life has ever been known. Great man that he is, he finds the most pleasure in his laboratory, working his experiments, discovering new truths. Born not quite 60 years ago, on a farm near Bridge-water, N. Y., he obtained much in his early life from that beautiful country's environment. As a boy he worked on his father's farm. Later he graduated from Tufts and studied at Cornell, inclining at that time towards the study of milk as a side issue. When he entered Cornell in 1871 he intended to take up engineering, but because outside work prevented it he arranged to study chemistry. Here we may say was the turning point of his life, as the study of Lactology, which was always interesting to him, was now made possible.

His ability as a chemist soon manifested itself to the professors and it was not long before he was offered an instructorship in Agricultural Chemistry at the University. For several years he held this position and did excellent work, even beginning some of the investigations which later made him famous. Urged and advised by the faculty to pursue his studies in Germany, he went to the University of Gottingen, receiving his degree there as Doctor of Philosophy in 1879.

From Gottingen Dr. Babcock returned to Cornell to take research work in Dairying. From this time his rise as a scientist began. Always was he getting new ideas, new theories. Upon the strength of a report which he submitted in 1882, the New York Agricultural Experiment Station offered him the position of Agricultural Chemist. Perhaps it was while working here that the idea of the milk test first came to him, for when he was called to Madison, Wisconsin, in 1887 to become Professor of Agricultural Chemistry, he began almost immediately to experiment along this line.

When Dr. Babcock began his studies, no method had been revealed to determine the richness of milk or the losses occurring in the manufacture of butter and cheese. By experimentation he found that sulphuric acid would dissolve all of the milk solids except the fat; and that by means of centrifugal force the fat could be separated from the other constituents. These principles he used to invent his famous milk test, which he gave to the public in 1890. This invention has placed the sale of milk upon a "square deal" basis. It has revolutionized the dairy



business, but it was done so gradually because the public did not at first recognize its value. The invention, however, only marked the beginning of Dr. Babcock's studies and discoveries.

The past few years he has been working with Dean Russel of Wisconsin, and through combined efforts they have added much to dairy science. The cold curing process for cheese; the Wisconsin Curd test and many other experiments have received their attention. It would seem that so many discoveries would satisfy Dr. Babcock, but not so.

There is about him that strong tendency to question, and this quality has often taken him into new fields of research. One of his latest discoveries has been with reference to the origin and nature of matter. Space would not permit to tell of his World's Fair prizes; of the degrees which have been tendered him; nor of all the truths and theories which he has given the scientific world; but no man yet surpasses Dr. Stephen Moulton Babcock in being so human, so devoid of greed, and so useful to dairymen and to the world.



THE INVENTION OF THE BABCOCK TESTER MADE DAIRYING PROFITABLE — IT ALSO MADE DAIRY CHAMPIONS.

## A Land with Limestone in It Is Always a New Land

**W**HEN Julius Caesar crossed to Britain, he found there an agriculture rather highly advanced; a multitude of small farms and industrious, home-loving farmers. Long before the day of Caesar these men had learned to take chalk from the hillsides and apply it to the land. They did not know the chemistry of calcium. To them carbonate meant nothing, bacteria had not been discovered, but this they had learned, that "lime do dung the land," as said a Dorset farmer to us one day. With lime they got clovers, or beans, or other legumes to grow and thus the crops of "corn" (they may have been oats or wheat or barley) that followed were better crops. Today there exist

enormous chalk pits whence was taken in ancient days the sweetener for sour soils. Thus we can in a measure resurrect the old farmer, our ancestor, and know of his life and labors.

The illustration is of a hilltop in Kent, where agriculture has been intensively practiced for at least 3,000 years. Can you show better oats in Ohio? Is it not an inspiration for better farming in Ohio, to see what is yet being done by the "poor, ignorant, degraded" farming peoples of the Old World.

In the illustration the figure is of our own "Joe Wing," who climbed to the field before breakfast to secure this picture for our use.



OAT FIELD IN KENT, ENGLAND.

The Fruit of Chalk. Clovers, Basic Slag and Manures. Land 3,000 Years Under Cultivation.



## Our College of Agriculture

E. R. HOFTYZER, '15

THE young man of the future who is to operate the Ohio farm is entitled to as thorough intellectual training as the preacher, the lawyer or the physician. Each of these professions requires time, study, and a suitable place to acquire the fundamentals. In view of these necessary requirements the commonwealth of Ohio has established a College, wherein the principles and truths of nature may be studied. This training, which has been so amply provided, is comparable to the training offered by all of the institutions belonging to the Association of American Universities. The College of Agriculture at Ohio State, therefore, flings wide open the doors of opportunity to the youths of the Buckeye State.

The purpose of the Agricultural College at Columbus is to train and develop men. Any thoughtful citizen of the State realizes the vital importance of increasing the number of skilful farmers. It is their work to make known the hidden possibilities of the soil and thus augment the returns of the tillers of the soil.

Abundant opportunity awaits the man well-trained in Agriculture. Teachers, managers of farms, Experiment Station men, agricultural journalists, leaders in rural life movements—all are constantly in demand. All men have their special place to fill—their special service to perform.

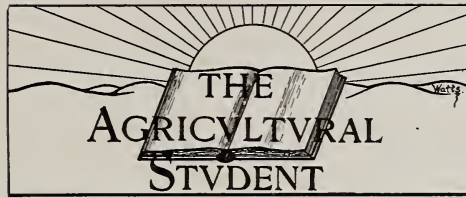
For example a first-class herd of both beef and dairy cattle, good specimens of mutton and wool type of sheep, swine of the bacon and lard type, and horses for light and heavy work are accessible for study. A poultry plant

of modern design has been erected which provides for work in poultry. To conserve the soil is another important study and the Department of Agronomy is equipped to furnish opportunity for both physical and chemical investigations of the soil.

In cooperation with the Experiment Station and the recent State Board of Agriculture, the College can point with pride to its accomplishment. To triple the corn crop and show how the wheat yield can be doubled with a proportionate increase in return profit are the results of some of the investigations. The greatest advancement in obliterating the dreaded Hog Cholera can be claimed by the Buckeye State. Her name will go down in history as the pioneer of investigators leading to the eradication of this dreadful scourge. Community breeding and the wonderful improvement of the dairy cattle throughout the state contribute to the reputation of the Animal Husbandry Department. The change in the quality and the yield of the Ohio apple serves as an indication of the work of the Horticultural Department.

Thus we see the opportunities which our College of Agriculture has in store for the young men of Ohio. People are fast coming to realize the all-important factor in the methods that make for record crops and better live stock is the well-trained man. Upon our College of Agriculture we are dependent for these men. As a result of their ministry on the farm, the welfare of the State will be insured and Ohio may more firmly establish her claim as the "Garden of Eden of America."





OF

OHIO STATE UNIVERSITY

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COLUMBUS, OHIO, FEBRUARY, 1914.

## Editorial

Eight hundred strong they came, fathers, mothers, and children to attend the Farmers' Week! Such **FARMERS' WEEK.** Their earnestness showed they were here for business. Who can measure the good they received! Who dares to tell how much good will come to Ohio State! Now the farmers and the college are getting together. Each helps the other. What if it was a strenuous week for our instructors. Can they not work a little extra to help their constituency—the farmers of Ohio? From nearly every county they came and from sixteen states. Why Ohio could afford to pay the expenses of Farmers' Week out of her advertising fund! May the good work go on. Our hats are off to the Extension Department and to all others who contributed in any way to the success of Farmers' Week. Let us make it

2000 next year. And now to our visitors we say farewell. Don't forget Ohio State. Give it a boost whenever you can. Tell your representative in the Legislature that Ohio State needs and deserves more liberal appropriations. Come back to us again next year.

January 21, 1914, marked the beginning of a new era in the history of the Agricultural College. It **A NEW ERA.** was on that day the University adopted the new five-year Arts-Agricultural course with the University of Akron. A complete copy of the course is found elsewhere in this issue. A number of the other colleges of the state are considering the adoption of a similar course. Such a combination will mean as much to the smaller colleges of the state as to our own college. The student spends three years in his own

school, getting the necessary art's work, languages and sciences and then he comes to Ohio State for the purely scientific agricultural work. After one year here the student returns to his home college to receive his degree from that institution. The next year he comes back to Ohio State and receives his degree in agriculture.

Such a course is productive of much good to all concerned. The home college profits by such a combination of courses for it will be able to keep those students who should attend there, either through church affiliations or on account of living in that community. It forever links them up as alumni and workers for their college. Ohio State will be able to solve its over crowded condition. As less elementary work will be done and more advanced work will be required better men will be provided as instructors. Thus will our college be gradually raised to a higher plane. The instructors will have more time for research study. If they do not have the time more men must be secured. The very fact that more advanced work is being done will necessitate more careful preparation on the part of the instructional force. We have already said Ohio State was passing through a unique period of its history. Great problems have been thrust upon it within the last few years and it is rallying to the task in a noble way.

Let other colleges throw aside all personal prejudices and adopt a similar course. In so doing they will enlarge their own field of usefulness, be able to keep all their own students and the whole cause of agriculture will be benefited. Many will have an opportunity for an agriculture education who will never get it under present conditions. May many other colleges adopt

similar courses before the opening of the next school year.

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At least two new courses have been adopted in the agricultural college already this year.

**DEPARTMENTAL LINES.** The faculty has been working on

a revision of the four-year course. While they are at it why not define departmental lines? It is a deplorable fact—but true—that our instructional force is inadequate to the work demanded of it. The enrollment has gone forward by leaps and bounds, yet the number on the teaching staff has remained practically the same. We hear our instructors complain—and justly too—that they cannot give the students all they would like to or cover as much ground as they should. Yet with all this we find some men who seem to feel that it is necessary for them to give work that—at least—seems to belong to another department. Why is it necessary for students to receive the same work in several departments? Would it not be much better if departmental lines were more carefully defined? Then each department would have time to cover its own subject in the most careful manner and a student would know what to expect when he enrolled in a course.

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After spending four years in college and taking different courses, both required and elective,

**A SUMMATION COURSE.** a student often forgets the proper bearing and value of

some of his earlier work. Especially is this true when a man takes work in different departments, and drops a course immediately after the final. If the English or European system was in

vogue here, in that a student had to pass a successful examination on his entire course at the end of three or four years' work instead of at the end of each semester, this would not be true. Some colleges have what they call a "Summation Course." In which a student during his senior year makes careful review of all his college work or at least that in the department in which he did the most of his work. Why not adopt a Summation Course at Ohio State? Then the student would be able to get a complete grasp on all his college work. He could also pick up the odds and ends, do special review work and thus be better fitted to take up agricultural work when he leaves the University. This course need not be long, probably one or two credit hours. The only thing that we have at the present time that approaches it is the course in Rural Economics. However, this course is really in a field of its own. If it is not feasible for a summation course in each department, why not in one for the college? This would give a chance for some man to express his views who feels called upon to teach in several departments at the same time.

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The Student ever stands ready to publish news relating to the societies, special shows or departments of the college. The Student management makes a special effort to mail out marked copies to all

contributors of articles, prizes for the shows, etc. The men and organizations contributing special prizes do it with the expectation of having the fact published so that the public may know who is giving the prizes. Our advertisers, graduates, contributors, alumni, and others read The Student, special programs, etc., that are sent out. As evidence we need only turn to our files or refer to the questions asked of The Student management as to why certain events are not boosted more. It is our business to run The Student. We endeavor to boost every show, every department and every organization about the college that deserves to be helped. Our columns are ever open for articles of this kind. Often it is very difficult to get organizations to realize the importance of properly advertising their shows, affairs, etc. All year we have been crowded for space. We always leave out much that we would like to publish. In view of these facts the societies and departments ought to make some effort to get their material to us on time. We refuse to be held responsible for advertising any event when the men whose business it is to look after this work do not get the information to us on time or in good form. In sending us material for publication write on one side of the paper, give the facts in plain English and get the manuscript in our hands by the first of each month. Publication matter may be left in The Student box in the Dean's office in Townshend Hall.

I do the very best I know how—the very best I can;  
and I mean to keep doing so until the end. If the end  
brings me out all right what is said against me won't  
amount to anything. If the end brings me out wrong  
ten angels swearing I was right would make no differ-  
ence.  
—Abraham Lincoln.





SPECIALS



The Arts-Agriculture Combination Course

TOTAL time required, five years, three of which are to be spent at the University of Akron and two at the Ohio State University. At the end of four years' time the degree Bachelor of Science will be conferred by the University of Akron, and at the end of five years the degree of Bachelor of Science in Agriculture by the Ohio State University.

General Requirements in Buchtel College of Liberal Arts.

1. No student is eligible for the Combined Arts-Agriculture Course who has not been a resident student at the University of Akron for at least three years and who has not gained at least 96 semester hours credit in Buchtel College.

2. No student shall be eligible for a degree from Buchtel College of the University of Akron in the combined Arts-Agriculture course who has not received sufficient credit at the Ohio State University to complete a total of 128 semester hours of work.

3. The Faculty of Buchtel College reserve the right to refuse to recommend for the combined course any candidate who has, in their opinion not maintained a standard of good scholarship.

Combination Arts-Agriculture Course.

Three years at the University of Akron.

First Year.

First Semester.

English 51 .....	2
Mod. Lang. ....	3 or 4
Chem. 351 or 353.....	4

Mech. Draw. 301.....	4
Mathematics 301 .....	4
	17 or 18

Second Semester.

English 52 .....	2
Mod. Lang. ....	3 or 4
Chem. 352 or 354.....	4
Desc. Geom. 332.....	4
Mathematics 302 .....	4
	17 or 18

Second Year.

First Semester.

English 53 .....	2
Invert. Zool. ....	4
Mod. Lang .....	3 or 4
Amer. History 271.....	3
Chem. 365 .....	3
	15 or 16

Second Semester.

English 54 .....	2
Botany .....	4
Mod. Lang. ....	3 or 4
Hist. West. Europe 272.....	3
Chem. 366 .....	3
	15 or 16

Third Year.

First Semester.

Polit. Economy 251.....	3
Physics. 341 .....	4
Vert. Zool. ....	4
Geology .....	3
	14

Second Semester.

Sociology 254 .....	3
Physics 342 .....	4
Botany .....	4
Geology 410 .....	3
	14

In addition enough elective work to complete at least 96 hours.

### Two Year Course at the Ohio State University.

#### Fourth Year.

##### First Semester.

Animal Husbandry .....	4
Agricultural Chemistry .....	4
Rural Economics .....	4
Agronomy .....	4

#### Second Semester.

Choice of any two of these the fourth year. The remaining two the fifth year.

In addition to the two selected, at least ten hours to be elected with approval of the Adviser.

#### Fifth Year.

Two subjects of four required in Senior year—8 hours.

Ten hours a week throughout the year, from any of the courses related to the previous year's work in the College of Agriculture.

### PROFITS OF ATTENDING THE COLLEGE OF AGRICULTURE.

"Knowledge is power" and the man who knows is the man who succeeds. The successful farmer is the farmer who knows the business of farming.

\* \* \*

It pays a student to go to the College of Agriculture to study farming because he can learn there in a few months what it would take him years to find out for himself. What the agricultural college teaches is not theory, but the results of actual experiments and the practices of the best farmers. Agriculture has no trade secrets—just as soon as a new method is discovered it is heralded far and wide and farmers are given an opportunity to avail themselves of the discovery.

\* \* \*

The question comes to me over and over again, "Does it pay to take a course in an agricultural college?" I always say, "It depends upon yourself and upon what your ideals are."

\* \* \*

The College of Agriculture stands

not only for better farming, increasing the production of our farms—making two ears of corn grow where one grew before—but for better business, teaching how the crops may be used after they are grown. Teaching that it is just as important to know how to dispose of the products as it is to produce them. That business methods must be used on the farm as well as in the city. But that is not all, the ultimate goal is better living.

\* \* \*

The three things that we try to impress upon our students and to fix as the very foundation of their education are—better farming, better business and better living. Any student that learns these three things and learns them well, I believe will find the time he has put in at the College of Agriculture has been profitably spent.

(Extracts from the address delivered before the Agricultural Commission Meetings held in Columbus, Jan. 14 and 15, 1914. By Dean H. C. Price.)

# WITH THE BREEDER

NOTES OF INTEREST AMONG THE FLOCKS AND HERDS

The title of Champion Jersey cow of the world, recently falling to Eminent's Bess, must now be given up to Sophie 19th of Hood Farm, Lowell, Mass. Her record is 17,557.55 lbs of milk and 995.69 lbs of butter fat. The average test for the year was 5.7% butter fat. Her records for the four previous years total 46,695.37 lbs. of milk and 3,253.56 lbs. of butter fat. These former records with the amount produced this year make a grand total of 64,253.1 lbs. of milk and 4,424.8 lbs. butter fat. This record exceeds that of Eminent's Bess by 39 lbs. of butter fat, but the milk production was 1,225.25 lbs. less than that of Eminent's Bess. The five yearly records of this cow have not been equalled by those of any other cow and they bring to Hood Farm the distinction of having the champion long distance cow of the world.

That Ohio still continues to hold a high place in producing record cows is seen by the fact that within the last month three Holstein cows finished their yearly records with over 900 lbs. each. The first of these is Lothian Maggie DeKol owned by Alexander Watts of Geauga County. Her record is 27,968.2 lbs. of milk and 991.3 lbs. of butter fat. This test was conducted under the ordinary stable conditions.

A new world's record for senior four-year olds was established by Lindenwood Hope owned by G. W. Rising of Fulton County. She produced in

the year 20,406.6 lbs. of milk and 931.5 lbs. of butter fat. This is the second champion of the Holsteins that has come into prominence on this farm within the last year.

The third cow is Maplecrest Pontiac Flora Hartog owned by Dan Dimmick & Bro. of East Claridon. Her production was 25,106 lbs. of milk with 986.1 lbs. of butter fat.

Rhea Nudine of Clenwood, a 17-year-old Holstein cow at Kingwood Farm, Mentor, O., recently completed a seven day record of 428.1 lbs. of milk and 14.75 lbs of butter fat. The average test was 3.4% butter fat.

A new long distance record for the Red Polls was established recently when Pear of Jean Duluth Farms of Minnesota produced in one year 13,000 lbs. of milk and 605 lbs. of butter fat.

The Secretary of Agriculture has announced the appointment of the following committee to investigate the various factors causing unsatisfactory conditions in meat production, especially with respect to beef, with a view to methods for improvement: Dr. B. T. Galloway, Assistant Sec. of Agr.; Dr. H. J. Waters, of Kansas; Prof. C. F. Curtiss, of Iowa; Prof. H. W. Mumford, of Illinois; Dr. A. D. Melvin and Dr. T. N. Carver, of the U. S. Department of Agriculture.

The work of the committee will be



centered largely on the study of production, transportation, slaughter and marketing of meat. It will investigate the public lands with a view of suggesting changes in the laws to make the lands of greater use in cattle raising. The committee will give special attention to changes in production and distribution brought about by the centralizing of meat preparations in large packing establishment, and to the economic possibility of community effort in cattle raising.

A significant feature of the 1913 International was the fact that for the first time herds from below the old Texas fever quarantine were exhibited in competition with cattle from all over the United States and Canada. One of the keen competitors for numerous prizes was the Shorthorn herd from the Lepedeza farm, one of the worst tick-infested herds three years ago in Tennessee.

Country slaughter of food animals means a loss of 75% of a highly valuable fertilizing material in the form of tankage and blood, according to the U.

S. Dept. of Agr. Tankage, a product of slaughter houses consisting of such waste materials as bones, horns, hoofs, and hair, contain 5 to 8% nitrogen and 5 to 12% of phosphoric acid. Dried blood contains about 14% nitrogen. In the packing house this is carefully saved, but in country killing only 25% of the blood and tankage are saved for fertilizer. The Bureau of Animal Industry estimates that if all the materials were saved, there would be produced 222,533 tons of tankage and 79,794 tons of dried blood. A co-operative system would undoubtedly result in increased utilization of these fertilizing materials. Such a system is being practiced in Denmark in small country abattoirs.

It is also estimated that \$22,000,000 worth of nitrogen is lost in the manufacture of coke in the beehive oven. Ammonium sulphate could be made from this process. The U. S. imports large quantities of nitrate of soda from Chile each year but the duration of this fertilizer is limited. Hence, nitrogenous fertilizers should be manufactured from material now going to waste.

And so they buried Lincoln? Strange and vain!  
 Has any creature thought of Lincoln hid  
 In any vault, 'neath any coffin-lid,  
 In all the years since that wild Spring of pain?  
 'Tis false—he never in the grave hath lain.  
 You could not bury him altho' you slid  
 Upon his clay the Cheops pyramid  
 Or heaped it with the Rocky Mountain chain.

—James J. Mackay.

# CURRENT AGRICULTURAL LITERATURE

COMMENTS AND CRITICISMS ON CONTEMPORARY CONTRIBUTIONS

**"Questions and Answers Relating to Modern Automobile Design, Construction, Driving and Repair,"** by **V. W. Page, M. E.**, is one of the latest books out on this subject. It is intended to be an elementary treatise for the owners of automobiles who desire to know more about their machines. Different parts of the car are taken up in their logical order, and in non-technical language, are covered by means of questions and answers. Along with the descriptions are a great many detailed drawings. The book is adapted to classroom work as well as for home instruction. 622 pages, illustrated. Cloth, \$1.50. The Norman W. Henley Co., New York.

**"The Modern Gasoline Automobile"** by **V. W. Page, M. E.**, is another more advanced work on automobile construction, operation, maintenance and repair. This is a more general treatise on the subject. No attempt has been made to make this volume elementary, yet it is free from technical language. All parts of the machine are carefully covered and illustrated by drawings. This volume will make a good supplementary reading course to follow the book mentioned above. 712 pages, 500 drawings. Cloth, \$2.50. The Norman W. Henley Co., New York.

Lippincott's **Farm Manuals** is a new series of books on Agriculture which has just been started. We are mention-

ing but two in this issue. The first is **"Productive Poultry Husbandry"** by **Harry R. Lewis, B. S.** This a complete text dealing with the principles and practices involved in the management of poultry. Among the many things given are the fundamentals of starting the business, construction and the plant, principles of feeding and breeding, natural and artificial incubation, the care of laying or fattening birds, marketing, exhibiting, judging, and the many diseases and insects pests. Condensed reviews are given at the end of each chapter. 536 pages, 329 illustrations. Cloth, net, \$2.00. J. B. Lippincott Co., Philadelphia.

A second member of this series is **"Productive Swine Husbandry"** by **George E. Kay, B. S. A.** This book was written with the view of producing a text as well as a reference book. The book is divided into seven parts, viz.; Introduction, Principles of Swine Breeding, Breeds of Swine, Results of Experiments in Swine Breeding, Feeding and Management, Marketing and Curing, and Buildings, Sanitation and Diseases. A concise review is placed at the end of each chapter. 330 pages, 75 illustrations. Cloth, net, \$1.50. J. B. Lippincott Co., Philadelphia.

**"Farmers of Forty Centuries"** is the title of the last book written by **Prof. F. H. King**. This volume deals with the conditions in China, Korea, and

Japan. It is the record of the observations of an Agricultural scientist on the conditions, customs and practices of those people who have tilled their soil for forty centuries, and who are yet practically maintaining themselves with an average population of about three persons per acre of cultivated land. It might be interesting to note, in passing, that for this study of Oriental Agriculture, Prof. King was awarded a medal by the National Geographical Society. This book is published by Mrs. F. H. King, Madison, Wis. 441 pages, illustrated. Cloth, \$2.50.

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"**The Suburban Garden Guide**" is a little volume written by **P. G. Barnes**, which will be found to be a valuable guide for those who have some spare time to work in the garden or wish to have flowers in the yard. It treats generally of the best vegetables for the home garden; the best flowers for the home garden; and how and when to spray; fertilization; and gives planting, spraying and pruning tables. 146 pages. Cloth, net, 50c. The Macmillan Co.

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**The Country Gentleman** for Jan. 10 printed an article on "**The Farmer's Bank**" by **Raymond Carroll**. This is an account of the farm credit system as it exists in France. This plan may not be adaptable to our conditions, but it may give some suggestions which will help solve the problem here.

**The Breeder's Gazette** for Dec. 18 was an exceptionally good number. Among the many fine articles found here is one entitled "**The Maximum Corn Crop**," by **E. M. East** of Harvard. Prof. East is an authority on the subject of genetics, and he has given more, by means of words and illustrations, some of the results that may be accomplished by applying to our corn culture those principles that we already know. He thinks that it would be possible to raise the corn crop of the United States ten million bushels per year.

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**Have you got tuberculosis in your home herd?** It was discovered in thirty cows in the Ohio Experiment Station herd when it was first tested. In every case the test was verified by a post mortem examination. **Director Thorne** has given an interesting account of the test in "**Tuberculin Cleans up a Dairy Herd**," in **The American Agriculturist** for January 17.

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**The Farm and Fireside** for Jan. 31 printed an article on "**The Soy Bean for Protein**" by **Charles B. Wing**. Mr. Wing is an Ohio farmer who has specialized in soy beans, alfalfa, and seed corn. He has given an interesting and instructive article in which are mentioned several varieties with their habits of growth, adaptation to soils, and comparative yields. Cultural and curing methods are given. The straw has been found to be very useful as roughage for cattle.

Sir, my concern is not whether God is on our side;  
my concern is to be on God's side, for God is always  
right.  
—Abraham Lincoln.



# ALUMNI WHAT THE BUSY GRADS ARE DOING

**John W. Wuichet** was born and raised in Dayton, Ohio. He entered the Ohio State University in 1904 and was graduated in 1908 with the degree of Bachelor of Science in Agriculture. During this time he took special work in Animal Husbandry and was chosen as a member of the Judging Team that represented Ohio State at the International Stock Show in 1907. Since leaving college he has given the greater part of his time to the breeding of live-stock especially the breeding of pure-bred Hampshire hogs. For the past two years he has been secretary of the Ohio Association of the Hampshire Swine Breeders and is also a director in the American Swine Record Association. He has bred and exhibited hogs for many occasions and might be termed a "swine specialist."

**F. P. Stump**, '92, who is farming near Convoy, Ohio, writes that 1913 was a hoodoo year for him. He lost 92% of his fine Berkshire herd by cholera. He is full of optimism, however, and writes: "I am trying to keep my head above H<sub>2</sub>O." Mr. Stump was a member of The Student staff at a time when it did not enjoy the popularity it does now.

**Scott Cunningham**, who attended the old Agricultural and Mechanical College in '74 and '75, is at the present traveling for the John Deere Plow Co. and also managing his large farm at Palmyra, Mo.

**Robert B. Kinhead** is Assistant Pro-

fessor of Agriculture in the Missouri State Normal School at Cape Girardeau, Mo. This school offers a special course in Agriculture.

**O. M. Kile**, '12, former editor of The Agricultural Student, now holds the capacity of Agricultural Extension Editor of the West Virginia Agricultural College at Morgantown. He is doing a great work and being an energetic worker he will be heard from more and more in the future.

**Robert W. Cory**, '08, is farming at Frankfort, Ohio. In writing to the University Association he says: "Born and raised on the farm and except for the time at Ohio State have always lived on the farm."

**John E. Jenkins**, ex. '15, is a rural pastor at Kenosha Lake, N. Y. He expects to enter Drew Seminary this coming fall.

**William G. Gaessler**, '11, is an associate chemist in the Iowa State College Experiment Station, at Ames, Iowa.

**Zeno P. Metcalf** is Associate Professor of Zoology and Entomology at the North Carolina College Experiment Station. He has written a number of books on Entomology.

**Orma Smith**, '07, is Professor of Biology and Chemistry in the University of Idaho at Caldwell, Idaho.

**Thaddeus Parks**, '09, is Field Entomologist at the University of Idaho.

**Joseph W. Ray**, '13, is an instructor in science in the high school at Greensburg, Indiana.

**Thomas H. Guyton**, '13, is teaching

agriculture in the city schools of Crestline, Ohio.

**E. E. Eckman**, '09, is connected with the Bureau of Soils at Washington but his work is mainly on the Pacific Coast.

**W. E. Hanger**, '12, is an agronomist at the Maryland Experiment Station.

**Stanley S. Hart**, '09, is engaged in stock farming in Preble County. He was a member of the '08 judging team.

**Ted Roush**, a former student, is a prosperous farmer near Hillsboro, Ohio.

**B. H. Sidle**, who was enrolled as a special student several years ago, is now traveling along the Pacific Coast as a representative of Bell Bros. importers of horses, Wooster, Ohio.

**Joseph Tullis**, '13, who has been farming near Mt. Vernon, Ohio, has gone to Idaho where he expects to engage in stock raising.

**G. J. Wilder**, '08, is manager of the city disposal farm of Cleveland. The farm is located at Hudson.

**H. J. Ridge**, '13, is dean of the agricultural department of Bluffton College, Bluffton, Ohio.

**H. R. Portman**, who attended the winter course several years, is manager of the Findlay Butter Co., at Findlay.

**Frank Boyton**, former student, is farming at Haverhill, O.

**Edwin Lantz**, '05, is secretary of the Y. M. C. A. at Tacoma, Washington.

"**J. A. Slipper**, Ex. '14, and a graduate of Ohio State University, will be engaged as an assistant in the soil laboratory after January 19."—The Purdue Agriculturist.

**Reed O. Brigham**, '12, who is taking advanced work in the University of Illinois, was a visitor on the campus during the semester vacation.

**V. A. Place**, '12, has resigned his position as instructor in the animal husbandry department at Illinois and will engage in stock farming at Marysville, Ohio.

**George R. Crumrine**, '00-03, is manager of the Clayland Poultry Farm at Nova, Ohio.

**Franklin Beck**, '08-'10, is the superintendent of a large farm for the Guarantee Realty and Trust Co., at Tiffin, O.

**Herman Burkland, D. V. M.**, '11 is with the Bureau of Agriculture at Manila, P. I.

**Earl Benton**, '08-10, is farming near Windor, Ohio.

I know of no pursuit in which more real and important services can be rendered to any country, than by improving its agriculture—its breeds of useful animals, and other branches of a husbandman's cares.

—Washington.

# Secondary Agriculture

Devoted to the Interests of Agricultural Education in High and Common Schools

FRED E. PERRY

February is one of the best months of the school year. It is a pure winter month with more settled weather than blustery March. The mercury is not quite so low as in January and there are even less sudden changes of weather. The keen frosty air seems to invite study, for that deadly malady known as spring fever has not yet arrived. Outside attraction is also at a minimum and there is nothing left to attract the wandering mind of the pupil except his lesson. A great amount of school work is usually accomplished during this month, so let us, as teachers and pupils, make February, 1914, splendid in the work we have done.

This month contains the birthday anniversaries of the two foremost Americans—Washington and Lincoln. We all remember the songs we sang in the grades, the pieces we spoke and the stories the teacher told us of these two men. And we are better Americans because of those days. So today the teacher has a golden opportunity to weld together history and agriculture and to especially emphasize the value of the latter from the lives of these great men. Lincoln, born and raised on a farm, was a lover of the soil all his life, while Washington lived on the farm at Mount Vernon and from the cherry-tree age till the time of his death was an enthusiastic student of agricultural affairs. The thought of these men

always brings a feeling of reverence and a quickening of the pulse and spirit. And after all, agriculture studied in the right way is with that same quickening of spirit, for agriculture that makes the farmer simply “raise more corn, to feed more hogs, to buy more land, etc.,” is a failure. Teachers should not miss this opportunity to drive home to the pupils, from the lives of these two great patriots, a love for our country and a love for the farm and farm life.

Planning and Adorning the Farmstead and School Grounds is the latest bulletin issued from the office of the Superintendent of Public Instruction. This is a valuable bulletin written for use of the teachers of agriculture—especially those in the seventh and eighth grades and in the high schools. The bulletin may be obtained by writing to the office.

Every school can have at least one corn exhibit this winter. The boys are ready and eager to bring corn from their father's crib. Get some one, who is a good judge of corn, to come and pick out the best ears. Make it a special event, for more can be learned about corn from such a corn show than by days of study from a book. In teaching Agriculture we need more of the “Squier's Method” and less of trying to learn everything from books.



**DER WANDERLEHRER.**

**I**T is not often that the American farmer gets a chance to take ideas from other countries as to the best means of running his farm. There are, however, a few things that we might adopt to advantage and the idea behind the system of the Wanderlehrer is one of them. In Germany the Wanderlehrer is a traveling or wandering agricultural teacher. He is paid a good salary by the government to spend his whole time in teaching the boys and girls the

of these schools carries back to the farm a grounding in the fundamental theories of agriculture that would be a credit to a graduate from one of our agricultural high schools. Going to school in Germany is not a joke by any means, as the students are there for work and they do not spend any of their time in athletic sidelines. It is only in the Universities that a man has a chance to loaf through school.

But it is in the spring and summer that the Wanderlehrer is in his element.



RATH-HAUS WHERE WINTER SCHOOL IS HELD AT THE VILLAGE OF FORCHEIM.

art of getting the most from the soil and it really is an art every one will agree.

In the winter time he has charge of a school in the village which the boys are very eager to attend. Here they take up the theoretical side of the question and study soils, fertilizers, botany, zoology and many other things that are of importance to the farmer. There are very few text books used but the teacher drills the boys by means of demonstrations and lectures. It is said that a boy who spends a winter in one

In the spring he packs his bundle and starts for some new village. The visit of one of these teachers is one of the big events in the life of the German farmer. He is given the best of every thing that the farm has and is shown every possible honor and courtesy.

He now gives all of his time to the small boy of about 12 to 15 years of age. For once in his life the small boy is the center of attraction. Of course all the rest of the family follow the man around the fields and pay close attention to all that he says. It is very

interesting to watch the demonstrator and his little audience as they go through the fields but it is still more interesting to join one of these groups and see the manner of teaching. We saw one such demonstrator at work in a beet field near the road and we stopped to watch him. He was showing two boys how to hoe the beets, and each of them had one of their large clumsy German hoes and they were very intent on their work. There were about half a dozen men and larger boys with them but they were only listening and did not have hoes. Nobody paid the least attention to us as they were listening very intently to what the demonstrator was saying. The boys would often ask questions, but the older men never said a word. The demonstrator would show them how to hoe the beets and how to get all the way around the beet with but two motions of the hoe and at the same time be sure not to injure the beet in any way. As all the labor of cultivation is done by hand it is of course important to know how to do it as rapidly and efficiently as possible.

The demonstrator inspects everything on the place and in the evening it is all discussed as they drink their beer and smoke their pipes. It is at this time that the older persons get the opportunity to ask any questions that they may desire. The German seem peculiarly fitted to ask questions and he undoubtedly makes the best of his opportunities at this time. Judging from observation and experience I think his first question will be "How much will it cost?"

The great majority of the German farmers are unable to send their sons to a school and so the government does the next best thing, it sends the teachers out to the farmers.

The idea is coming into this country and here it is seen in the office of Agricultural Advisor or Farm Demonstrator as it is sometimes called. It is to be hoped that in a few years the legislature will provide for the salary of such a man for each county in the state. He would be a man well versed in the science of agriculture and would spend his whole time going to farmers, as he was called upon, to advise them in their work. In the counties where it has already been tried out it has been very successful.

Quincy A. Main, '14.

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### MANUAL TRAINING AT WOOSTER HIGH SCHOOL.

Whenever possible, give your pupils a few instructions in shopwork. If your school building is equipped with a manual training laboratory, so much the better; if not, a corner in a room, a bench and a few tools will be a start. Teach the pupils to make useful articles for the farm, like gates, benches, etc., instead of the formal exercise work such as the making of joints, dovetails, tenons and patterns. Even if the pupils are unable to make any special articles, they should be taught the proper use and care of tools.

Many boys have a mechanically bent mind and the sight of tools will work wonders in their minds. They will take pride in this kind of work and it will attract the attention of friends and parents—thus the whole community will eventually be interested in the school.

The boys of the Agricultural Department, Wooster High School, in order to further equip their laboratory, decided to make a number of fly-traps and sell them to the business men of Wooster, the profit to pay for the desired equipment. The board of educa-

tion agreed to furnish funds for the material. The traps were made—well built, neatly constructed ones, and sold to the business men, nearly every merchant buying one of the inexpensive but efficient traps. The amount of flies caught was astonishing and people soon began to inquire as to who had made the traps. Traveling men took notice and spread the news of the fly-traps in other cities. During the summer an order came to the “Wooster Fly-Trap Co.” for three hundred traps.

The boys have shown what they can do when given a little help and encouragement. They not only bought the desired equipment, but solved an effective method to combat the fly nuisance. The people of Wooster are proud of the boys and will help them every way possible. This is simply a concrete example of what might be accomplished in every school.

C. M. B.

### PIG RAISING CONTEST.

The United States Government, in connection with the State Colleges, has started a pig raising contest in the South. “Boys’ Pig Clubs” are to be organized and any boy between the ages of 10 and 18 may become a member of the club. Each boy must secure at least one pig, care for his stock in person and keep a record of his pigs for at least four months in order to compete for the prize. The Department of Agriculture sends out instructions to the club members, with advice about feeding, raising, sanitation, judging, etc.

A bulletin has just been issued entitled, “Boys’ Pig Clubs, With Special Reference to Their Organization in the South.” A number of very important instructions are given for the prevention of hog cholera. Some of the suggestions are as follows:

Do not have your hog lots next to highways, railroads, or streams. If your neighbor’s hogs have cholera, do not allow any one from his farm to visit your farm and especially your hog lot or pens, and keep away from your neighbor’s hog lot, whether his hogs have cholera or not.

Do not keep pigeons or allow them to alight on your premises.

Keep away crows and buzzards.

Quarantine all new hogs brought to your place until you are sure they are free of disease.

Do not allow a patent-medicine man on your place, for you do not know how recently he has visited a sick herd.

Disinfect your wagon and your own shoes and clothes after hauling hogs to stock yards or railroad loading pens.

Avoid every possible way of carrying infection to your hogs.

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### Exercise to Show That Plants Give Off Moisture.

A small vigorous plant in a flower pot or tin can, a piece of cardboard large enough to cover the top of the pot and a glass tumbler or jar, are used in this experiment. Cut a slice to the middle of the cardboard and draw it around the plant until the plant comes through the middle of the cardboard which rests on the top of the pot. Seal the slit and the space around the stem of the plant with wax, paraffin or tallow so that no moisture can come up from beneath. Cover the plant with a glass vessel which makes an air-tight connection with the cardboard and set in a warm sunny place. Moisture will condense on the inner surface of the glass, though the glass may have to be cooled to bring about a ready condensation. A number of botanical facts may be illustrated by this simple exercise.





## February News Notes

Seven hundred and seventy, as compared with one hundred and sixty for last year, was the attendance at the Farmers' Week, Feb. 2-6. Of this number 590 were men and 180 were women, representing 77 different counties in Ohio and 16 different states—including New Hampshire, Iowa, Texas, and Canada. The average age of the men was over 50 years; the oldest being J. C. Johnson, 89, from Washington County, and the youngest William Humphrey, 12, from Montgomery County. Franklin County had the largest delegation with 142, followed by Licking, Delaware, Madison and Pickaway. Montgomery County Y. M. C. A. sent a special delegation of 12 boys. The largest increase in attendance this year was from the counties in which Agricultural Extension Schools have been held.

A distinctive feature in connection with the Farmers' Week was the meetings of different Ohio associations, such as the Ohio Dairyman's Association, the Ohio Plant Breeders' Association, and the Ohio Livestock Breeders' Association. The latter had a very interesting meeting on account of the large number of farmers present and a resolution was passed that it should meet at the University during Farmers' Week next year. The general trend of all the meetings was in sympathy with Farmers' Week and it is probable that these

meetings will be held during that time hereafter.

The program consisted of 50 lectures given by 32 well-known Agricultural men and women from Ohio State, Ohio Experiment Station, Cornell, Indiana, Illinois and Kansas. Every one was pleased with the lectures and felt amply repaid for the time and money expended. The influence of these people will greatly help in "spreading the bacteria," as Prof. Graham puts it, and we may expect a much larger attendance next year.

### THE STUDENTS' CORN AND GRAIN SHOW.

The Third Annual "Battle of the Kernels," Ohio State University's Corn and Grain Show, was held in Townshend Hall, January 28 and 29. Nearly 100 entries were made in the fifteen classes. A new feature of the show this year was the exhibit of Soy Beans, Clover and Timothy Seed. The leading prize winners of the show this year were M. M. Sharp, B. E. Pontius and D. H. Evans.

The Students' Judging Contest was held Wednesday and eighteen students entered the contest. W. L. Williams won first place and will have his name engraved on the Ohio Farmer Loving Cup. B. E. Pontius was second and received the fountain pen offered by Prof.

McCall. The three other prizes were won by C. E. Wylie, H. Rodgers and D. B. Smiley.

B. E. Pontius won the sweepstakes of the show on the best five ears of Yellow Corn and will have his name engraved on the National Stockman and Farmer Loving Cup.

Contributors to the premium list were: Hoster Brewing Co., \$25 on barley; Associated Fertilizers Co., one ton of fertilizer; Dean Price, \$5; American Baking Co., \$5; Varsity Drug Co., fountain pen; Smox Smith, one cap; College Book Store, watch fob; "Fannie," box cigars; Kiler-Walters, set of four pennants, and Shannon Hardware Co., two corn graders.

Among the Agricultural papers to contribute subscriptions were: The Ohio Farmer, National Stockman and Farmer, Farmers' Guide, American Agriculturist, and The Agricultural Student.

Clark Wheeler, of the Extension Department, judged the corn and Malon Yoder, of the Department of Agronomy, the small grains and the sweepstake class.

R. P. Dowler was President of the Show, and E. A. Chenault, Secretary.

The registration in the Short Course numbers two hundred. Of this number sixty-five have received either a high school or college education. Ninety-three per cent hail from the farm, and seven per cent from the city. As regards age, twelve per cent. are under twenty-one years; eighty-six per cent are between twenty-one and fifty; two are over fifty years, and one has passed the three score mark. Eighty counties of Ohio and seven states of the Union are represented.

The poultry show held by the Ohio State Poultry Association was a decid-

ed success. It was the largest ever held in this city and all previous attendance records were broken.

Columbus never had so many farmers at the meeting of the Ohio State Board of Agriculture as were present at the first annual meeting of the Ohio Agricultural Commission in January. This enthusiasm is only representative of the increased and active interest taken at present in Ohio agriculture. Live stock breeders were desirous of having an exhibit at the Panama-Pacific Exposition since they saw that this would be an advertisement of Ohio bred stock. They urged Governor Cox to ask for an appropriation from the state for this purpose.

The program included many round table talks and discussions. The principal speakers of the last day were Senators Kenyon of Iowa and Pomerene of Ohio. These two men have been conducting the fight at Washington for an appropriation to eradicate hog cholera. The entire meeting was a great success and will stand as one of the important gatherings of agriculturists in our state.

Recent reports show that Ohio leads all other states of the Union in the development of her rural credit system. The State Board of Building and Loan Associations of Ohio is now on a self-sustaining basis. Its expenses are paid in full by fees attached to each association when it files its annual report. There are in this state at present 665 such associations, an increase of 16 over last year. These are taking care of over 5,600 farm mortgage loans which range in duration from one to fifteen years.

H. Rodgers, '15, judged the exhibit of corn and made the awards at the Farm-



ers' Institute held at West Jefferson, January 13th.

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Two articles appearing in the "Jersey Bulletin and Dairy World," of November 26 and December 10, demonstrate that The Student has maintained a high standard of excellence in the selection of its material. It was noticed that this publication used two articles written by Prof. Erf and B. J. Ruetenik for our Dairy issue in November. These deal with Advanced Registry Testing and Line Breeding in the Dairy herd, and are well worth the commendation given them by our friends.

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E. P. Reed, '14, placed the samples and gave a talk on corn judging at the Corn Show held at Williamsport, January 15th.

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"An Ohio State Man With a Vision" was the subject of a discussion covering most of the Sunday School period one Sunday morning not long since, in the Students' class of Northminster Church taught by O. L. Skinner. This article, written by Prof. Vivian in the December issue of The Student, was read to the class, since it deals with the work of Sam Higginbottom and Wm. Bem-bower at the Christian College, Allahabad, India. Mr. Bem-bower was a former member of this class and his mission in the foreign field is always kept fresh in the memory of his friends here

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Ohio now has another county agent. The third county to secure an advisor is Trumbull. The Agricultural Commission recently decided to place the agents only in those counties having experiment farms. However, since the Improvement Association in this county had raised sufficient funds to secure this man, it was decided to place M. O. Bug-

by, '05, the district supervisor, in charge for one year. The Experiment Station pays his salary and the members of the County Association bear his expenses. The question of a county Experiment Farm will be brought before the Association this year.

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Paul Fischer, for twelve years the head of the State Veterinary Department and one of the foremost hog cholera experts of the United States, will resign his position to take up work for the Hungarian government. He will produce serum at Reynoldsburg, near Columbus, for this foreign country. It is said that his resignation will affect the fight in Ohio to stamp out hog cholera, especially since he is also going to take with him Dr. A. D. Fitzgerald, pathologist in the Veterinary Department.

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The first man to take advantage of the opportunity offered to graduate students in the College of Agriculture to work out their Master of Science degree at the Experiment Station is W. H. Goodwin. He has taken his advanced course of study in experiment station research and has submitted his thesis. Six others are now taking their graduate work here.

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A new extension bulletin on producing clean milk has recently been written by Prof. O. C. Cunningham, of the Dairy Department.

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Some of the seasonable bulletins available at the present time from the Extension Department are: "Transplanting," "Propagation of Plants," "Spraying Fruit Trees," "A Farm Garden," "Potato Growing," "Plant Food," "Drainage of Farm Lands," "A Corn Catechism," and "Varieties



of Apples for Ohio." These may be obtained without cost by addressing Prof. A. B. Graham, Ohio State University.

Two members of the Senior class recently left school to take up work in other universities. John Slipher has been engaged as Assistant in Soils at Purdue, Ind., and D. S. Myer has gone to the Kentucky State University as Assistant in Agronomy.



#### ANIMAL HUSBANDRY NOTES.

The Animal Husbandry Department has recently made a very valuable purchase. This was the black Percheron filly, Dope, secured from Mr. C. F. Camp, of Homerville, Ohio. Dope is a three-year old and now weighs over 1800 pounds. She was sired by Dorus, and he by Diamant. Her dam was Lois C., by Moreau. The filly was first in the 1912 Eastern Futurity Show and carried away the blue ribbon in the two-year-old class at the Ohio State Fair last fall.

Two Berkshire barrows were recently purchased by the Animal Husbandry Department from Mr. W. H. Palmer, of the Extension Department. These are especially good specimens for classroom work.

#### Ohio Percheron Breeders' Meeting.

Mr. J. H. S. Johnstone, of Chicago, addressed the Ohio Percheron Horse Breeders' Association, at their annual meeting held in the Judging Pavilion.

on February 4th. Mr. Johnstone was the man who fathered the draft horse futurity idea at Des Moines, Iowa, which show attracted national attention in 1913. He spoke on the topic, "Draft Horse Futurities." Mr. Johnstone commented upon the futurity plan as being "a breeders' show for the breeder," and set forth the benefits derived from such events. Their influence is to encourage the proper development and growth of draft colts. Futurity shows also furnish a market where prospective buyers may find the choicest young stock.

With the proper support from the State, the Percheron breeders can and expect to make the Eastern Futurity Show as good a market as there is in the world.

At the close of Mr. Johnstone's address Dean H. C. Price, of the Agricultural Commission, expressed the opinion that the Agricultural Commission would meet the draft horse breeders of Ohio half way and lend its support toward furthering the Percheron industry in Ohio.

The place of holding the 1914 Eastern Percheron Futurity has not been fully determined. There is a strong possibility of its being changed from the Ohio State Fair to the Forest City Fair at North Randall, Cleveland, unless proper support is given by the Agricultural Commission.

The Percheron horse breeders of Delaware County have organized an association called the Delaware County Percheron Horse Breeders' Association, with W. W. Ferguson, President, and Otho H. Pollock, Secretary.

The purpose of the organization is a co-operative one, the object being to encourage the breeding of high class drafters, and make Delaware County a

center where the best Percherons may be found. Much interest is shown and already a futurity event has been planned for the fall of 1914, to be held in connection with the Delaware Pumpkin Show.

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### Merino Meeting.

The Vermont, New York and Ohio Merino Sheep Breeders' Association held its annual meeting in Columbus, January 7th. Flockmasters from these three states, which have wrought vast improvement in the Merino race in the past, assembled and laid plans for the future. A new volume of registry is now being prepared and will be in print by early summer.

The aim of these Merino breeders at present is to meet the foreign demand, and raise a type which will produce the most wool and mutton possible.

In spite of the fact that the tariff on wool is removed, the Merino men see a bright future for the active and judicious breeder.

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L. A. Webster, of Whiting, Vermont, addressed the January meeting of the Saddle and Sirloin Club upon the topic, "What is Your Mission?" Mr. Webster is a live stock artist of recognized ability throughout the United States, and is Associate Editor of the American Sheep Breeder. In his remarks he pictured the environment of some of America's greatest men. Many a country boy leaves the farm and enters the city because he fails to see and appreciate the beauties of country life.

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Members of the judging teams now and in the future shall receive certificates signed by the President of the University, head of the Animal Husbandry Department, their coach and the

President of the Saddle and Sirloin Club. These give them the privilege of wearing the watch-fob with the official insignia adopted by the club.



### HORTICULTURAL NOTES.

Bigger and better than ever before, the Fifth Annual Apple Show was staged in Cleveland, Jan. 20 to 25, inclusive. The exhibits filled the old Central Armory. A new 100 tray class was a feature of the show, both first and second prizes going to W. W. Farnsworth. As a work of art, the gigantic map of Ohio constructed entirely of apples of different colors, brought praise from all who attended. The educational features in connection with the show excelled even the shows of the West. Although there were only about forty exhibitors, the fruit displayed was of exceptional quality and in large amounts. There is some evidence of the show being held at Columbus next year. Various boards of trade have asked for this privilege, including Columbus, Circleville, Canton, Cincinnati and Chillicothe. The annual meeting of the Ohio State Horticultural Society, held in connection with the show, was largely attended. Among the speakers at the meetings were Prof. J. W. Smith, Prof. Paddock, Prof. Davis and Dean Price.

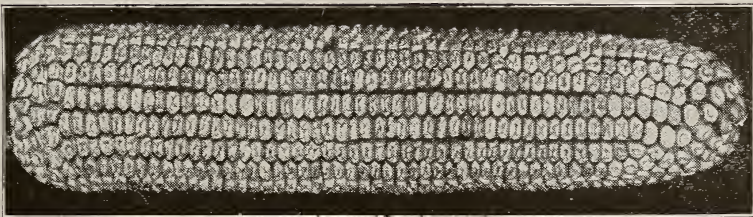
Prof. V. H. Davis recently delivered an address on transplanting before the Independent Farmers' Institute at Wadsworth, Ohio.

N. R. Elliott, '14, and C. L. Long, '13, are helping with the Winter Course students in the courses in Horticulture.

Many Columbus people, including President W. O. Thompson, C. F. Clark, Hammond, Hammond & Baker Co., and others, who are interested in the San Pedro Fruit Company, of the Isle of Pines, are pleased to know that an Ohio State man has taken charge of the plant disease work in their orchards. John

M. Rogers, '13, recently left for the Isle of Pine to take up these duties. Columbus people alone own more than a thousand acres of the citrus orchards upon the island.

Norman E. Shaw, Chief Inspector of Orchards and Nurseries, will address the March meeting of the Agricultural Society. His subject will be "The Chicago Land Show and Ohio's Influence." The election of officers for the society and also the election of the Editor and Business Manager of The Student will be held at the meeting. All members of the Society and all other students are urged to be present.



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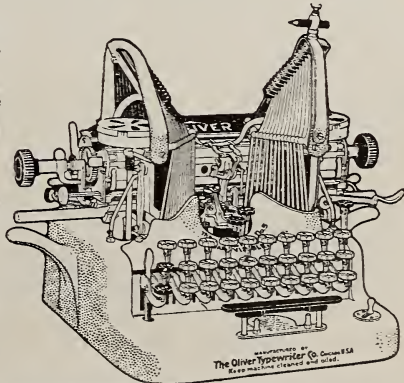
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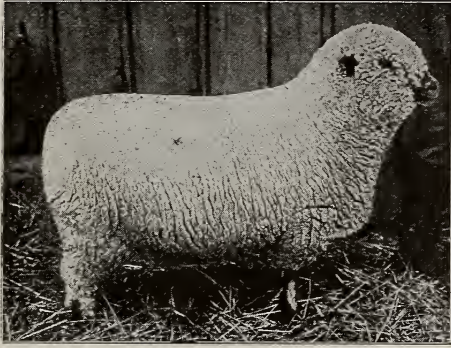
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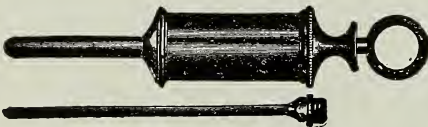


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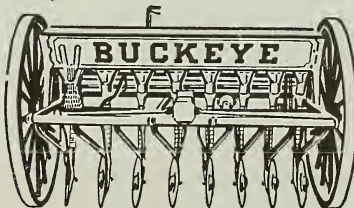
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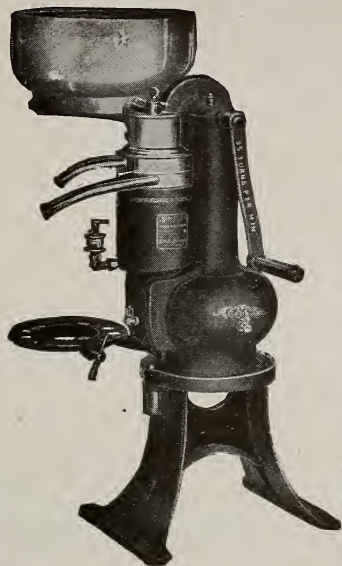
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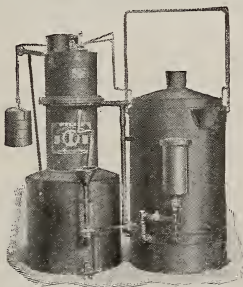
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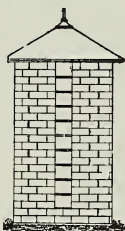
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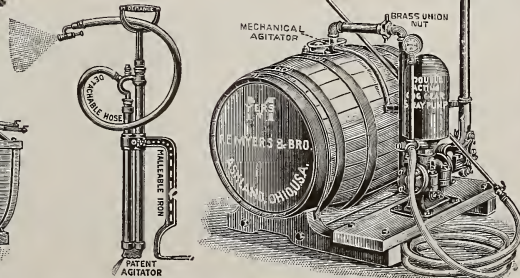
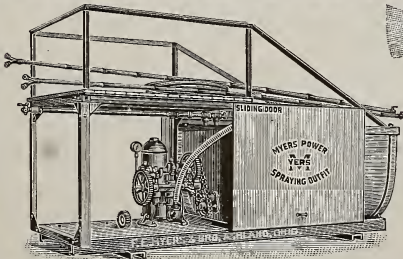
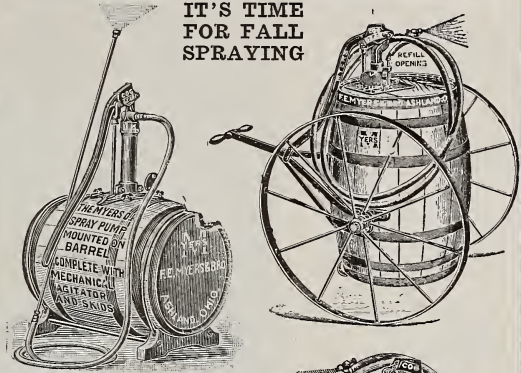
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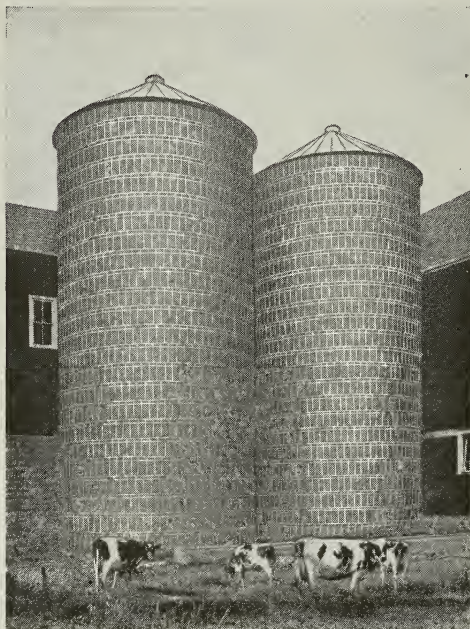


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